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KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/KALAMAZOO RIVER SUPERFUND SITE

**RESPONSE TO USEPA'S JULY 1, 2009 COMMENTS ON THE PLAINWELL NO. 2 DAM AREA
TIME-CRITICAL REMOVAL ACTION DRAFT DESIGN REPORT, MAY 2009**

General Comment 1:

The design report does not indicate how the information from this Removal Action will be incorporated into the Remedial Investigation (RI) and Feasibility Study (FS) reports Operable Unit 5, Area 1. Since this Removal Action is occurring after the development of the RI Work Plan, it must be clear that the nature, objectives and results of this Removal Action will be incorporated into the RI and FS reports. Further, the effectiveness of this removal must be discussed in the RI report to include, at a minimum, water quality analysis, soil and sediment pre- and post- removal concentrations as well as mass removal and fish monitoring results.

Response:

New Section 1.2 was added to address the integration between this Removal Action and the overall Supplemental Remedial Investigation/Feasibility Study (SRI/FS) process at the Superfund Site. As part of the new risk assessments that will be conducted under the February 2007 Administrative Settlement Agreement and Order on Consent (SRI/FS AOC), potential exposures after construction will be evaluated through the results of post-construction sediment/soil sampling, water column monitoring, and yearling fish monitoring.

General Comment 2:

The document does not include any discussion of fish monitoring for determining the effectiveness of the TCRA. Although this information may not be part of the Design Report, a reference to how fish tissue analysis to further evaluate the effectiveness of the TCRA must be included in this document.

Response:

New Section 5.2 was added to address fish tissue monitoring in the Plainwell No. 2 Dam Area. Fish tissue monitoring will be conducted at the start of the removal action and it is anticipated that long-term monitoring will continue at an approximate three-year frequency according to a long-term fish tissue monitoring plan to be developed jointly by USEPA, MDEQ, and the KRSG (and approved by USEPA) as reflected in the Scope of Work attached to the SRI/FS AOC.

Specific Comment 1:

Section 1.5, Page 1-13 – Objective 5 is not applicable to the activity proposed and should be removed or reworded to indicate that the Trustees will make a determination if compensatory restoration is accomplished at the site.

Response:

Reference to Objective 5 was reworded to indicate that the Trustees will make a determination if compensatory restoration is accomplished at the project area.

Specific Comment 2:

Section 1.6, Post-Construction Monitoring and Maintenance, Page 1-17 – The first sentence of this section should be modified as follows: "As described in Section 5, post-construction activities will focus on monitoring and maintenance activities." The Administrative Order on Consent for Plainwell Dam #2 requires a separate proposal for post-removal site control to be submitted in accordance with the Work Plan (Design Report) schedule. Discussions regarding monitoring and reporting frequency are more appropriate during the development of the post-removal site control plan. The Design Report schedule should specify when the draft post-removal site control plan will be submitted to U.S. EPA.

Response:

The text in the Post-Construction Monitoring and Maintenance section has been updated as suggested to indicate that "As described in Section 5, post-construction activities will focus on monitoring and maintenance activities." An anticipated submittal date for the post-removal site control plan has been included in Section 5.7.4 (formerly 5.6.4).

Specific Comment 3:

Section 2.2, Page 2-5 – At the end of the sentence that reads "Removal will be completed to a neat line to be established in the final design, (insert) "with confirmation sampling as described in Section 5.4."

Response:

Text has been amended as suggested.

Specific Comment 4:

Section 2.6, Page 2-12 – It is our understanding that you are revisiting the proposed earthen berm to access the first island and we support a temporary structure that spans the water surface to the extent possible in lieu of blocking it.

Response:

The option to use a temporary structure to access Island 1 has been considered; however, due to the small size of the Island and difficulty of maneuvering large equipment in this area, the most efficient method of access will be to create a berm to the island. This berm is not anticipated to be in place for more than four weeks, as it will be removed immediately following excavation work in the Island 1 area.

Specific Comment 5:

Section 2.6, Sediment Removal, Page 2-13 – U.S. EPA strongly recommends using a sealed closed-bucket clamshell during the removal. If a visor bucket is used, there should be no drain holes in the back of the bucket.

Response:

While the text has been revised in two places within Section 2.6 to refer to a visor-equipped excavator bucket with no drainage holes, the use of closed-bucket clamshells or a visor bucket may have a significant adverse impact on sediment removal productivity with little or no benefit to the project. The open-bucket equipment used during the Former Plainwell Impoundment TCRA did not generate unacceptable levels of resuspended sediments nor did it produce layers of residual sediment requiring additional excavation. The KRSG is willing to utilize a closed-bucket approach during the execution of the Plainwell No.2 Dam Area TCRA for comparison purposes, but only with the understanding that the OSC will allow a return to open-bucket techniques if productivity is adversely affected.

Specific Comment 6:

Section 3.7 – This section should indicate that access roads left behind and areas where excavated material will be managed will be verified to be clean as specified in the access agreements with each individual property owner.

Response:

A paragraph has been added at the end of Section 3.7 that reads "Any access roads that are left in place will be verified as clean, then graded and seeded as necessary, in accordance with details provided in the access agreements with the individual landowner. All materials that are removed from the project area will be disposed of at a commercial landfill or appropriately stockpiled for reuse at future removal actions."

Specific Comment 7:

Section 5.1, Page 5-1 – The description of the turbidity monitoring equipment is different throughout this section. This section needs to clarify that turbidity monitoring devices with associated telemetry equipment will be installed at the locations upstream and downstream of the removal area.

Response:

Text in Section 5.1 has been revised to indicate the consistent use of turbidity monitoring devices with associated telemetry equipment in all cases.

Specific Comment 8:

Section 5.4, Page 5-7, First Bullet – The first paragraph should clarify that the excavation will initially be considered complete when the removal is performed to the cut line based on the maximum depth of penetration of the bucket as measured by the RTK GPS system, and the bottom elevation is shown to be within 6 inches of the cut line.

Response:

Text in Section 5.5 (formerly Section 5.4) has been amended to read:

"Excavation will initially be considered complete when the removal is performed to the cut line based on the maximum depth of penetration of the bucket as measured by the Real Time Kinematic Global Positioning System (RTK GPS), and the bottom elevation is shown to be within 6 inches of the cut line."

Specific Comment 9:

Section 5.4, Page 5-7, First Bullet – The first paragraph should also state that when confirmation data is above 1 mg/kg, an additional 6 inches will be removed. This is consistent with the removal goal of removing sediments with PCB concentrations greater than 1 mg/kg.

Response:

Text has been revised to read:

"If the PCB concentration is greater than or equal to 1.0 mg/kg, an additional 6 inches will be removed from the entire confirmation unit."

Specific Comment 10:

Section 5.4, Page 5-7, First Bullet – The text in the second paragraph should be revised as follows: "Following any additional excavation of sediments, sub samples will again be collected from a random location in each grid cell, composited, and submitted for laboratory PCB analysis. If the PCB concentration from the second round of sampling is less than or equal to 5 mg/kg, no further excavation of the area will be required. However, if the PCB concentration remains greater than 5.0 mg/kg, an additional 6 inches may be removed and the sampling process and analysis repeated at the direction of the OSC."

Response:

Text has been revised as suggested. A paragraph has also been added at the end of this section to state that:

"USEPA recognizes that although the goal of the removal action is to remove sediments with PCB concentrations above 1 mg/kg from targeted areas, this may be technically impracticable given the removal methods being used for the TCRA. Final confirmation data collected as part of this removal action will be used in developing the final Record of Decision (ROD) for Area 1."

Specific Comment 11:

Section 5.4, Page 5-8 – At each sampling location, the thickness of soft sediment should be recorded by pushing the core to refusal when collecting confirmation sediment samples or using a rod to measure the thickness.

Response:

The following text has been added to Section 5.5 (formerly Section 5.4) to address this comment:

"Soft sediment depth data will also be collected by pushing a core to refusal while collecting samples, or by using a rod to measure thickness."

Specific Comment 12:

Section 5.4, Page 5-8 – The document should state that samples collected from each 75'x30' decision unit will not include sediment from the toe.

Soil samples collected for confirmation sampling in bank, toe-of-bank, and floodplain surface soils should not be taken at 6 inches below the floor of the excavation, but rather of the top 6 inches of the floor of the excavation and composited.

The document needs to reflect that the split samples taken at 5% of the confirmation units, will be analyzed and compared to the composite data within 60 days after the removal action is complete, for use of the future evaluation of removal and/or remedial projects.

Response:

Text has been added to indicate samples will not include sediment from the toe of bank.

Text has been reworded to indicate that all confirmation samples collected in bank, toe of bank, and floodplain surface soils will be collected from the 6-inch depth increment below the floor of excavation.

The following text has been added:

"The split samples will be analyzed and compared to the composite data within 60 days after the TCRA is complete, for use in the future evaluation of removal and/or remedial projects."

Design Drawing Comment 1:

G-5.1, Part 2.03(I) – Some of the larger diameter live stakes at Plainwell #1 had poor survival. We would ask for an assessment of the 3" diameter stake performance to ensure adequate survival before using this size again.

Response:

The performance/viability of plantings used in the TCRA in the former Plainwell Impoundment will be assessed during the operation and maintenance (O&M) period following construction. At this point no changes have been made to the revegetation plans for the Plainwell No. 2 Dam Area project.

Design Drawing Comment 2:

G-5.2, Table A footnote – Design drawing G5.2, Table A and footnote indicate different rates of seed application, we would encourage consideration at the 33 lb per acre rate.

Response:

The note referring to rate of seed application has been removed from Drawing G5.2. A 33 lb per acre rate is deemed appropriate for the application of emergent wetland seeding and a 30 lb per acre rate is deemed appropriate for the application of forested wetland seeding.

**RESPONSE TO MDEQ'S VERBAL COMMENTS ON THE PLAINWELL NO. 2 DAM AREA
TIME-CRITICAL REMOVAL ACTION DRAFT DESIGN REPORT, MAY 2009**

The MDEQ was afforded the opportunity to review and comment on the draft design report along with USEPA and the Natural Resource Trustees. While MDEQ notified USEPA that they would not provide written comments, MDEQ did communicate several verbal comments to ARCADIS concerning preparation of the final design. Comments and responses are summarized below:

Verbal Comment 1:

Revisions to the limits of removal should be considered at the downstream extent of removal across the river from the left diversion structure on the southern bank

Response:

The downstream extent of removal in this area has been revised so that it is integrated with the surrounding ground surface grades. Review of topographic contours from the more detailed survey data provided the basis for the downstream extent of removal along this bank.

Verbal Comment 2:

Revisions to the limits of removal should be considered at the upstream extent of removal along the southern bank immediately across from Island 2.

Response:

The upstream extent of removal in this area has been revised so that it is integrated with the surrounding ground surface grades. The floodplain tapers out in the upstream direction due to a relatively steep adjoining slope

Verbal Comment 3:

Reconsider the decision to not remove toe of bank material on the northern bank across from the upstream end of Island 2

Response:

The PCB concentration in a toe of bank sample collected in this area as part of the SRI/FS activities was 1.3 mg/kg, which is below the PCB concentration generally used to establish bank material removal limits (5.0 mg/kg). The toe in this location is to be left in place as removal activities in this portion of the project area are not planned to extend below the median water level.

Verbal Comment 4:

Consider extending the upstream extent (southern extent) of sediment removal in the oxbow area to the berm located approximately midway along the oxbow.

Response:

It is not evident that any significant benefit (in terms of PCB mass reduction) would be realized by extending the removal area by an additional approximately 250 feet; therefore, the additional cost of removal activities and access road construction along the oxbow appear unwarranted. The extent of removal in the oxbow remains as described in the Draft Design Report.